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ABSTRACT

Teacher questions play a crucial role in affecting the quality of reading instruction, yet, once a child responds to a teacher's question, little is known of the teacher's verbal feedback which provides the pupil with an indication of the accuracy of his or her response. Data were collected from 16 first and third grade teachers during basal reading instruction via audio recordings. The frequency and corresponding percentage of the overall feedback was tabulated, while teacher questions and pupil responses were subjected to chi square testing for significance of intragrade and intergrade differences. The data indicated that a variety of 19 types of feedback with a general affirmative tone were consistently used. Teacher questions were found to be the apparent function of intragrade and intergrade grouping, as was pupils' frequency of wrong responses and no responses. (Author)

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TEACHER VERBAL FEEDBACK DURING PRIMARY BASAL READING INSTRUCTION

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Abstract

Teacher questions play a crucial role in affecting the quality of reading instruction, yet once a child responds to a teacher question little is known of the teacher's verbal feedback which provides the pupil with an indication of the accuracy and quality of his response. Data were collected from sixteen first and third grade teachers during basal reading instruction via audio recordings. The frequency and corresponding percentage of the overall feedback was tabulated, while teacher questions and pupil responses were subjected to chi square testing for significance of intra and intergrade differences. The data indicated that a variety of nineteen types of feedback with a general affirmative tone were consistently used. Teacher questions were found to be the apparent function of intra and intergrade grouping as was pupil's frequencies of wrong responses and no responses.

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Abstract. Teacher questions play a crucial role in affecting the quality of reading instruction, yet once a child responds to a teacher question little is known of the teacher's verbal feedback which provides the pupil with an indication of the accuracy and quality of his response. Data were collected from sixteen first and third grade teachers during basal reading instruction via audio recordings. The frequency and corresponding percentage of the overall feedback was tabulated, while teacher questions and pupil responses were subjected to chi square testing for significance of intra and intergrade differences. The data indicated that a variety of nineteen types of feedback with a general affirmative tone were consistently used. Teacher questions were found to be the apparent function of intra and intergrade grouping as was pupil's frequencies of wrong responses and no responses.

A survey of fifteen central Georgia school systems revealed that the basal reading approach was the primary tool of reading instruction in the early elementary grades. Normal basal reading instruction requires that the teacher ask the pupil questions which are relevant to the skills of interpreting words and phrases, recalling story ideas, following a sequence, getting the main idea, following directions, reading for details, making comparisons, classifying ideas, and forming conclusions. Teacher's questioning of pupils becomes the basis for the dialogue method of instruction, in which children and teacher come together to discuss material that has been read. It also serves as the prime method in ascertaining whether or not the pupils have understood the passage. An additional function of teacher question-

ing is that it facilitates the child's ability to learn. According to Taba (1964), "A focus set by the teacher's questions circumscribes the mental operations which students can perform, determine what points they can explore, and what modes of thought they can learn."

After the teacher has asked the question and the pupil has given a reply, another significant instructional behavior takes place which is referred to as teacher-verbal feedback. Zahorick (1968) states that verbal feedback can theoretically have considerable effect on pupil learning and system control. After a pupil has given an oral response verbal feedback provides important information to the pupil relative to the effectiveness or quality of his response. Using this feedback information the pupil can adjust and modify his future responses in terms of his goal. From teacher verbal feedback the pupil can gain a measure of control over his oral cognitive behavior.

A. Problem

In order to provide more generalizable information a naturalistic setting was selected to serve the purpose of this study in providing descriptive research relevant to teacher question-pupil response-teacher feedback sequences. The specific problems researched were:

1. What types of feedback do teachers use and how frequently do they use them?
2. Are there intra- and intergrade relationships between teacher questions, and pupil response.

B. Method

1. Subjects

The subjects were eight first grade teachers and eight third grade teachers and their classes of pupils. Teachers were selected on the basis

of at least three years of successful teaching experience in their respective grade levels as indicated by the recommendation of their principals. At each grade level, the teachers were subdivided equally between advanced groups consisting of pupils whose reading scores on a standardized test were in the highest distribution of the grade level and/or had appropriate teacher recommendations; and basic reading groups which consisted of pupils in the lowest distribution of the grade level according to the test and teacher recommendation.

The teachers were housed at four different but equivalent low middle Socio-Economic Status Schools in Central Georgia, as determined by parental income, per pupil dollar expenditure for education, and the number of pupils on free federal lunch programs. The racial ratio for each school was approximately 60 percent white and 40 percent black.

2. Instrument

The feedback instrument used to analyze the teacher question-pupil response-teacher feedback sequences was developed by the investigators. Primary influence may be credited to research by Zahorick (1968), a model presented by Good and Brophy (1970) and a pilot tape transcript analysis; however, previous interaction instruments and research were also considered. The instrument consists of four broad areas and twenty-three subcategories as can be seen in Table I. The initial area is question number which is designed to code the total number of questions asked per session. The second area consists of the types of pupil responses given to teacher questions. Areas three and four are composed of two forms of teacher verbal feedback; area three codes simple feedback while area four codes extended feedback. Simple and extended feedback may be given by the teacher independently or in combination.

TABLE I - Categories of Question - Answer - Feedback Sequence Analysis

1.0 QUESTION NUMBER

1.0 _____ - The number of teacher questions asked.

2.0 PUPIL RESPONSE

2.1 Right - Pupil's response is considered by teacher correct or satisfactory.

2.2 Part right - Pupil's response is considered by teacher partially correct or correct but incomplete.

2.3 Wrong - Pupil's response is considered by teacher to be incorrect.

2.4 No response - Pupil says he does not know or makes no response at all.

3.0 TEACHER SIMPLE FEEDBACK

3.1 Praise - Teacher praises pupil in elaborate way (e.g. "good thinking" "excellent," "wonderful") very positive, warm feedback.

3.2 Affirmation - Teacher acknowledges pupils response as correct (e.g. "yes," "O.K.," repeats pupil answer verbatim).

3.3 No reaction - No feedback given, teacher asks new question.

3.4 Negation - Teacher states pupil response is incorrect (e.g. "No," "That's not quite right," "Hm-mm").

3.5 Criticism - Teacher criticizes pupil by expressing verbal negation in a frustrated, angry, or disgusted manner (e.g. "You had better pay closer attention," or That doesn't make any sense").

4.0 TEACHER EXTENDED FEEDBACK

4.1 Response development with prompt - Teacher encourages pupil who gives incomplete answer or no answer by asking related questions or providing clues which lead to the correct answer.

4.2 Response improvement with clarification - Teacher helps pupil who has given acceptable answer but one that needs improvement or expansion.

4.3 Rephrases question	- Teacher rewords question in attempt to help clarify it for the pupil.
4.4 Repeats question	- Teacher repeats question verbatim.
4.5 Response extension	- Teacher takes basic pupil response and improves it or clarifies it in the process of restating the answer.
4.6 Gives answer	- Teacher simply tells the pupil or group the correct answer.
4.7 Asks other	- Teacher asks another pupil to respond.
4.8 Checks answer	- Teacher asks class or another pupil if a child's response is correct.
4.9 Refocuses	- Teacher wishes to lead pupil to "see" related topic or point after pupil has given an acceptable answer.
4.10 Ambiguous	- Teacher does not indicate whether or not answer is acceptable.
4.11 Redirection	- Teacher redirects the same question which requires multiple part answers to several children.
4.12 Rationale	- Teacher provides a rationale or explanation why pupil's answer is incorrect.
4.13 New Question	- Asks same pupil new unrelated question.

3. Procedure

Each teacher was requested to tape record three basal reading sessions using a standard cassette recorder. The use of three tapes was to provide the teachers with time to become at ease with the recorder running during their reading sessions and to facilitate its placement within the group in order to provide optimum audio clarity. The actual data for the study was coded from the third tape.

The question-response-feedback instrument in chart form was used to codify each tape by the researchers. In some cases it was necessary to transcribe sections of the tapes verbatim and code from the transcripts however, in other casess running-tape coding was used. Observer agreement coefficients were computed with intrajudge coefficients of .95 and .97 recorded while interjudge coefficients of .64 to .92 were established for the different categories.

C. Results

The results of this study indicate that among the 2567 coded cases of feedback, a variety of different types were used. While the most recurring type had a frequency of 546 the least used variety had a frequency of only three. In order to provide some measure of clarity, it was arbitrarily decided to isolate those types receiving less than two percent of the total frequency. After isolating the infrequently used varieties of feedback, nineteen types remained. These nineteen types are reported in Table 1I.

The data presented in Table II indicates that affirmation is the most frequently used form of teacher feedback. Affirmation by itself represents 21.26 percent of all teacher feedback given, and when in combination with other types it is found in all of the first six most frequently used feedback sequences

TABLE II Frequencies and Percentages of Use of the Nineteen Most Frequently Occurring Types of Teacher Verbal Feedback

Feedback Type*	Frequency	Percent+
1. 3.2	546	21.26
2. 4.1-3.2	191	7.44
3. 4.3-3.2	134	5.22
4. 3.2-4.2	123	4.79
5. 4.11-3.1-3.2	122	4.75
6. 4.11-3.2	109	4.24
7. 3.4-4.1-3.1	101	3.93
8. 4.5	98	3.81
9. 3.2-4.2	82	3.19
10. 4.3-3.1	79	3.07
11. 3.2-4.12-4.1-3.2	72	2.80
12. 3.2-4.5	67	2.61
13. 4.4-3.2	63	2.45
14. 4.11-3.1	62	2.42
15. 3.1	60	2.34
16. 4.4-3.4-4.1-3.2	59	2.30
17. 3.4-4.7-3.2	56	2.18
18. 3.2-4.9	52	2.03
19. 4.12-4.1-3.2	52	2.03
Total 19 types	2128	82.06
Total all types	2567	100.00

* The titles of the categories which comprise the feedback types are: 3.1, praise; 3.2, affirmation; 3.4, negation; 4.1, response development with prompt; 4.2, response improvement with clarification; 4.3, rephrases question; 4.4, repeats question; 4.5, response extension; 4.7, asks other; 4.9, re-focuses; 4.11, redirection; and 4.12, rationale.

\+ The percentages of use of the types of feedback are based on the total number of feedback statements made (2,567).

listed.

Combinations of feedback types appears to be a prevailing pattern. Only three types affirmation, number one; response extention, number eight; and praise, number fifteen stand by themselves. The other feedback sequences range from combinations of two to four types. The combination of two types

of feedback is the most common occurring in eleven of the nineteen cases.

Some forms of feedback were used in multiple combinations such as to attenuate their rank order within Table II. An example of this is redirection (4.11) which when used in combination with praise and affirmation is found in position number five, however, it is also found in position six when combined with only affirmation and in position fourteen when in combination with praise.

The general climate of the feedback seems to be affirmative to highly positive. There is a total absence of criticism (3.5) within the nineteen listed types of feedback in Table II. Negation, the simple act of telling a child the answer given is incorrect, is found in only four sequencies-number seven, eleven, sixteen and seventeen; however, negation is only found in sequencies which elicit additional responses from the child which are either affirmed or praised.

TABLE III Frequency of Teacher Question Category

Group	Number of questions asked*	
Advanced First Grade	656	(584)
Basic First Grade	532	(584)
Advanced Third Grade	608	(584)
Basic Third Grade	540	(584)
	2336	

* Expected scores in parenthesis

The frequency of teacher questions as seen in Table III was another variable that was examined. The computation of a chi square value by the usual procedure resulted in a score of 17.82. With three degree of freedom, this is significant at the .05 level (also at the .001). Thus the probability that the sample distribution would occur by chance, if, in fact, the population

distributions are the same, is less than .05. We cannot entertain the null hypothesis, and thus conclude that advanced first, basic first, advanced third, and basic third teachers differ with regard to the number of questions they ask per session. Once having rejected the overall fit of the four groups it became valid to make several subgroup comparisons via chi square testing. Each comparison was calculated with one degree of freedom and was found significant at the .05 level. In three of the four cases the level of confidence was found significant at higher than the .05 level, the higher significance levels are indicated in parenthesis. Advanced first vs. basic first yielded a chi square score of 13.51 (.001), advanced first vs. advanced third had a chi square score of 9.87 (.01), while advanced third vs. basic third produced a chi square score of 4.31, and basic first vs. basic third yielded a chi square score of 7.95 (.01). Thus we may accept the hypothesis that teacher-questioning is a function of intra- and intergrade differences.

The data within Table IV dealing with pupil responses are based on a four group, four category distribution which has six degrees of freedom. Computation of a chi square value resulted in a score of 62.05 which is significant at the .05 level (also at the .001). Because the statistical test was significant, we can conclude the hypothesis of the groups being the same is not tenable. However, this does not tell us the source of difference between the four selected groups. The cells of one category (in this case column) may be compared with the cells of another category. An inspection of the differences between observed and expected cell frequencies should give some indication of the situation. When the sample distribution is compared in this one by four method four separate chi square tests are required each with three degrees of freedom.

Chi square computations yield scores of 5.45 and 4.72 respectively for the right and part right columns. Both scores fall within the area which might occur by chance and do not exceed the .05 level of confidence needed to reject a null hypothesis. The wrong column produced a chi square score of 8.33 which rejects the null hypothesis at the .05 level. The no response column has a chi square score of 44.04 which surpassed the .05 (and the .001) level of confidence and rejects the null hypothesis.

TABLE IV Frequencies of Pupil Responses to Teacher Questions

	Category				
Group	Right	Part Right	Wrong	No Response	Row Subtotal*
Advanced First	579 (543.62)	22 (31.37)	36 (30.29)	24 (49.49)	661
Basic First	468 (468.78)	28 (27.05)	38 (26.12)	36 (42.68)	570
Advanced Third	527 (514.84)	31 (29.71)	25 (28.68)	43 (46.87)	626
Basic Third	439 (482.76)	35 (27.86)	33 (26.90)	80 (43.95)	587
Column Subtotal	2010	116	112	183	2444 TOTAL

*Expected frequencies in parentheses

An additional breakdown of the two significant columns indicates that within the wrong column only those combinations which include the basic first group produced significant chi square scores. The no response column data indicates that only combinations which include either or both advanced first and basic third groups produce chi square scores which rejects the null hypothesis.

D. Discussion

The paper has presented within the framework of a naturalistic setting, although somewhat limited by sample size, a descriptive view of behaviors enacted during the teacher question-pupil response-teacher feedback sequences.

Nineteen types of verbal feedback with a predominately affirmative tone were most frequently recorded. Although the overiding quality of the feedback was affirmative mutliple cases of praise were recorded while criticism was negligible. This affirmative tone may be open to speculation in favor of a better balance between affirmation and praise for correct answers.

The requency of questions asked appears to be a function of the grade and group of pupils. Advanced classes were asked significantly more questions than basic groups and advanced first asked more than advanced third. It might be speculated that as teachers increase the complexity of their questions from first to third grade the frequency of questions would be reduced, as was the case for the advanced groups. However, basic third actually asked more questions than basic first. Additionally a mean frequency of 146 questions per teacher per session might be viewed as too many questions to asked in to confined a period.

The distribution of pupil responses were not significantly different from the expected for right and part right answers. However, basic first grade groups seem to be involved in a disproportionate amount of wrong responses; while advanced first and basic third tend to give significantly more no responses.

While this study attempted to quantify multiple aspects of verbal behavior in teacher question-pupil response-teacher feedback sequences all speculations of cause and effect need to be subjected to verification through experimental research. Controlled situations need to be developed to measure the types of sequences which foster the greatest growth and increased learning on behalf of children.

References

1. Brophy, J. and Good, T., "Brophy-Good System" (teacher-child dyadic interaction). In A. Simon and E. Boyer (eds.), Minors for Behavior: An Anthology of Observation Instruments Continued, 1970 Supplement. Vol. A Philadelphia: Research for Better Schools, 1970.

2. Taba, Hilda. "Thinking in Elementary School Children." Cooperative Research Project No. 1574. San Francisco State College, 1964, p. 53.

3. Zahorick, John A. "Classroom Feedback Behavior of Teachers." The Journal of Educational Research. Vol. 62, No. 4, December, 1968 p. 147-150.

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